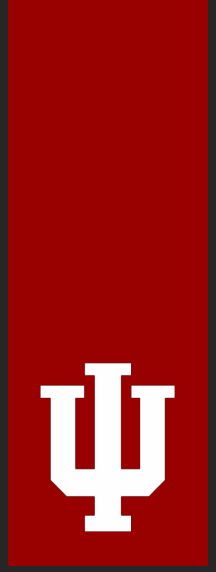

Electronic Resources & Libraries 2019

Holistic e-resource analysis to support changing acquisition models

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Changing Acquisition Models

Rationale

- Enhance ability to fulfill mission and values
- Unsustainability of current financial model

Comparison of Models

Current Model	Proposed Model
1. Bifurcated budget 2. School-based budget 3. Librarian selection of materials	1. Consolidated budget 2. Budget based on 5 broad categories 3. Librarian selection of PDA pool

#1 Challenge

Perceptions

- Library as buyer and keeper of “stuff”
- Equating school assessments directly with “their materials”

Complexity

1. Assessment
2. Service development
3. Workflow development and revision
4. Financial implications
5. Communication
6. Long-term planning

2018-2019 Priorities

1. “Books on Demand”
2. **Subscriptions evaluation**
3. Communication strategy

DEFINITION

Holistic Collection Assessment

A Definition

An *analysis process* that enables individuals making collection management decisions to quickly determine the value of an individual resource within the context of a subject specific collection and/or within the entire library's collection.

Why It's Important

We want to…	In order to…	Things we want to stop doing…
• Determine the value of resources in the context of library's collection. • Fulfill user needs in the most economically responsible manner	• Use available data to make data informed decisions • Determine & fill gaps • Cancel unused resources • Plan principled negotiations	• Making rushed decisions • Cancelling resources that are used (but may lack data) • Purchasing duplicate content • Making one-off purchasing decisions

Holistic collection assessment supports accomplishing these goals and is a critical step for us moving to our proposed new model. It is critical for understanding price sensitivity.

METHODS & METHODOLOGY

Conducting Holistic Collection Assessment

Metrics

- Price history
  - 6 years of data is ideal
  - Calculate 5-year & 3-year Average Annual % Inc/Dec
- Use history
- Cost/Use
  - Use to spot trends
- Portion of spend
  - Pareto analysis of resource costs
- Content coverage
  - Unique attributes
  - Duplication
  - Competitive resources/ substitutes
- Consortia status
- Multi-year contract agreements

Goal: Determine our true level of price sensitivity!

Average annual price increase/decrease can indicate sensitivity over the last 5 or so years. Higher average price increases are indicative of showing less price sensitivity toward a resource. The other metrics reveal why.

What is Price Sensitivity?

Price sensitivity is the extent to which buyers are sensitive to price increases.

Four factors influence price sensitivity:

- proportion of total cost,
- the level of differentiation between products,
- the importance of a product/service to the buyer for offering a quality service or product to their own customers,
- the level of competition between end users.

Porter, M. E. (2008), “The five competitive forces that shape strategy”, *Harvard Business Review*, Vol. 86 No. 1, pp. 78–93.

Factors of Price Sensitivity

Price sensitivity factor	Metric
Proportion of total cost.	• Portion of spend
The level of differentiation between products.	• Content coverage (i.e. overlaps, uniqueness)
The importance of product/service to the buyer for offering a quality service or product to their own customers.	• Cost per use • Cost per citation • Stakeholder use in research or teaching (curriculum) • Uniqueness within the collection • Consortia agreements
The level of competition among end users (customers).	• Competitive products • Substitutes

Macy, K.V. (2018) "Information creates relative bargaining power in vendor negotiations", The Bottom Line, Vol. 31 Issue: 2, pp.137-149, https://doi.org/10.1108/BL-12-2017-0033

Data Gathered	Source
Historical cost (at least 6 years)	ILS Internal budget reports
Historical use data (at least 6 years)	Historical tracking spreadsheet Archived original usage reports from vendors
LibGuide clicks	LibGuides statistics (Springshare)
Overlap analysis	Serials Solutions
Resource content	Library website LibGuides
Portion of spend (Pareto analysis)	Internal Budget Reports
Consortia agreements	ILS

Data is consolidated using spreadsheet software such as Microsoft Excel, which offers a suite of tools to assist with data cleanup including Text to Columns, Removing Duplicates, Creating Pivot Tables, and Conditional Formatting.

Challenges Faced in Developing Assessment

1. Many different data sources
2. Title changes in our system
3. Human created spreadsheets and notes
4. Use data not always available
5. Resource cost allocated over multiple budgets

Tackling the Challenges

Challenge	How to address…	Enables
Different data sources	Determine unique identifiers • ISSN/ISBN • PO Number	• Using vlookups when joining data in analysis spreadsheet
Title Changes in System/Spreadsheets	• Unique identifiers may need to be added to data downloads/ spreadsheets if missing • Create spreadsheet with unique identifier and current title • Add column to historical data sheets called current title and use vlookup to add current title.	• Summarizing historical data quickly using tools such as pivot tables

Tackling the Challenges

Challenge	How to address…	Enables
Human created spreadsheets (particularly use tracking)	• Separate numbers from text into different columns i.e. 450 downloads would become 450 | downloads numerical date in "use" column" and text in "use type" column	• Easy value calculations such as cost/use • Graphing data • Spotting numerical trends and potential errors • Creating pivot tables!
Use data is not available	• Use research guide or website clicks as a proxy.	• Comparing similar databases with use statistics to approximate use.
Resource cost allocated over multiple budgets in spreadsheets and reports	• Pivot tables to summarize cost of resource	• Accurate calculations of cost/use (less human error) • Quick consolidation of all data for a resource

Pareto Analysis aka 80/20 Rule

Determine 20% of your resources (by count) that will account for 80% of your spend. Using a flag to indicate those resources, allows us to prioritize efforts that will have highest impact.

Resource	Cost	Cumulative Spend	% Cumulative Spend	Pareto Flag
Resource 1	20,000	20,000	19%	Y
Resource 2	19,500	39,500	38%	Y
Resource 3	16,000	55,500	54%	Y
Resource 4	15,000	70,500	68%	Y
Resource 5	12,000	82,500	80%	Y
Resource 6	10,000	92,500	90%	N
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
Resource 25	500	103,000	100%	N

Setting Priorities for Deeper Review

1. Use Pareto analysis to determine resources with greatest potential for impact
2. Determine which resources have the highest cost/use
3. Determine which resources have an average annual price increase above a certain level (e.g. 5%)
4. Consider whether consortia relationships are involved

Start here to dive deeper. Look to document content, specifically uniqueness, overlaps, and competitive products.

Once documented, move to the next level of resources, perhaps the count of resources that contribute the next 10% of the total spend or resources that were part of the first 80% but had lower cost/use or average annual price increases.

Elephant1 by flowcomm

Collection Scorecard 1.0

TITLE	Example Journal/E-book Database	
	PHASE ONE RESOURCE:	Yes
	FYE CANCELLED	
	CONSORTIUM	0
	MULTIYEAR CONTRACT	0
	CONTRACT EXPIRATION	0
	ORDER ID	PO-555555
	VENDOR ID	ABCDE
	PUBLISHER	EBSCO*
	TYPE OF DATABASE	Articles
	HOW FUNDED	PO
	% OF TOTAL SERIAL SPEND	2.00%
	PARETO FLAG (80/20 COST)	Yes
	5-YR AVG PRICE INC/DEC	6.00%
	3-YR AVG PRICE INC/DEC	5.59%

*Note not an EBSCO title. All data is mocked up.

Calculations
5-YR AVG PRICE INC/DEC
((2018 Price - 2013 Price)/ 2013 Price) / 5
3-YR AVG PRICE INC/DEC
((2018 Price - 2015 Price)/ 2015 Price) / 3

HISTORICAL							
YEAR	2012	2013	2014	2015	2016	2017	2018
PRICE		$40,000	$42,000	$42,500	$45,000	$48,000	$52,000
USAGE	201,451	220,987	225,524	185,145	90,010	89,174	
$/USE	$ 0.20	$ 0.19	$ 0.19	$ 0.24	$ 0.53	$ 0.58	
LIBGUIDE CLICKS					3,744	3,881	4,258

CONTENT	
Index/Abstract Only	No
Full Text Articles	Yes
E-Book	Yes
Primary Sources	No
Guides/ Handbooks/ Standards	No
Multimedia	No
Data & Statistics	No
Directory or Catalog	No
Encyclopedia or Dictionary	No

OVERLAP ANALYSIS	
Title Unique	76
Holding Unique	3
Total Unique	79
Full Holding Overlap	8,531
Partial Holding Overlap	18
Total Holding Overlap	8,549
Title Overlap	10
Total	8,638
Percent Full Overlap	99.09
Percent Unique	0.70

COMPETITIVE PRODUCTS
TBD

UNIQUE CONTENT
TBD

JOURNALS ONLY

DATABASES PROVIDING COVERAGE
TBD

Insights & Next Steps

Insights

1. Expertise is essential
2. Prototyping works
3. It takes a village
4. Data enables quicker, more informed decision making

Next Steps

1. Diving deeper into resources
2. Valuing Big Deals
3. Making decisions
4. Sharing what we learn

Questions?

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